

**Alaska Energy Authority & Denali Commission
Emerging Energy Technology Fund Progress Report**

Grant Number: 74310049

Project Title: Small Community Self Regulating Grid – Tuntutuliak

Grantee: Intelligent Energy Systems

Reporting Period: July 1 to September 30, 2015

Deliverables Submitted: None

Budget: Project remains on budget. A revised schedule and budget has been submitted. As per instructions from Josh Craft, the financial statement for Q3 is waiting for this revision before submission.

Schedule Status: Commissioning is 100% complete.

Percent Complete: 90% project completion overall.

Miles tone	Task		Deliverables	Progress Status
	1	Purchase components for controller upgrades and software license		100% Complete
	2	Complete controller programming for prototype		100% Complete
	3	Test single ETS unit controller for frequency response at ACEP test facility	1. ACEP test results	100% complete. Final report from UAF/INE complete
	4	Develop system instrumentation plan	2. System one line, & 3. Instrumentation Plan	100% complete
	5	Purchase data collection instrumentation		100% complete
	6	Purchase installation and commissioning components		100% complete
	8	Install and commission SRG system	5. Commissioning report installations	100% complete
	10	Monitor system in centralized and distributed frequency controls modes and optimize system efficiency		60% complete
	11	Economic analysis on stove consumption	6, Economic analysis	In progress with ISER
	12	Data evaluation and draft project report	7. Draft project report	
	13	Final project report	8. Final report	

Work Progress: With the new software and firmware, the second iteration of commission was completed and successful! Frequency was controlled with the ETS units during winds up to 40 mph. The village system had been running automatically in Self-Regulating Grid mode since September, 2015

Future Work: A final trip will be done to gather power quality data at distal points in the village (single-phase in homes, and 3-phase at the school). Monitoring will continue through January 2016, at which point a final report will be prepared.